



Urban ReLeaf: People-Powered Pathways to Urban Climate Adaptation Across Europe

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Our Objective

Citizen-generated data help address critical gaps. By integrating these data into policy and participatory governance, the project strengthens local capacities for equitable urban greening.

Through its six pilots, Urban ReLeaf demonstrates how inclusive CS, data-driven policymaking, and integrated urban planning can support a just transition, ensuring urban ecosystems meet environmental and social needs.

Urban ReLeaf provides a pathway for cities to democratise environmental monitoring and create more inclusive, liveable spaces for future generations.

A look at the project in numbers

4
Years

9+
Countries

€5.2m
Budget

15
Partners

6
Pilot Cities

5+
Accelerator Cities

Utrecht, Netherlands



Utrecht's "Green Neighbourhood, Cool Neighbourhood" campaign engaged residents in collecting temperature and humidity data and mapping heat perceptions. Citizen-collected data informed local adaptation measures and supported decision-making through the Utrecht Digital Twin.

Riga, Latvia



Riga's "Adopt a Sensor" campaign engaged residents in monitoring air pollution and urban temperature using distributed sensors. The data increased awareness of air quality and heat islands and supported evidence-based policy action.

Cascais, Portugal



Cascais transformed urban greenspaces through the "A Future-Proof Urban Park" campaign, engaging residents in reporting thermal comfort and measuring heat stress with mobile sensors. Citizen science informed greenspace planning, identified urban heat spots, and supported protection of vulnerable groups.

Athens, Greece



Athens addressed increasing heatwaves and air pollution by deploying a network of low-cost air quality sensors across all municipal districts. Municipal street cleaners were also engaged in monitoring heat stress with mobile sensors while a new participatory tree registry aimed to improve greenspace management and climate resilience.

Dundee, UK



Dundee engaged residents and community groups in assessing perceptions of and access to greenspaces plus conducting off-grid air quality monitoring activities near schools. Citizen input supported more inclusive greenspace planning and raised awareness of environmental health and urban resilience.

Mannheim, Germany



Mannheim enhanced its public tree registry with citizen observations via a smartphone app to improve tree management and identify planting sites. The campaign also engaged residents in mapping heat stress perceptions in public squares to inform urban greening and heat protection measures.

Data collection & engagement metrics

- 330.000+ air quality measurement hours
- 450.000+ temperature & relative humidity observations
- 2.500+ surveys completed
- 1.000+ tree updates
- 3.500+ citizens engaged (59% female participants)
- 110+ parks, greenspaces, neighbourhoods, sites investigated
- 350+ sensors installed/deployed
- 600+ app downloads/users

Lessons & impacts

Strong community engagement: Successful campaigns relied on events, local ambassadors & partnerships with schools, NGOs & community groups.

Technology + accessibility: Multi-format data collection (apps, sensors, web, paper) ensured inclusion of digitally-excluded groups

Evidence-based policy: Data is shaping climate adaptation strategies, heat mitigation plans, mobility measures & greenspace planning.

Community empowerment: Participants gained environmental awareness & agency, leading to local greening initiatives & increased civic participation

Themes

- Greenspace Perception
- Urban Trees
- Air Quality
- Heat Stress

Technologies

- Wearable Sensors
- Mobile Applications
- Air Quality Monitors PM2.5

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